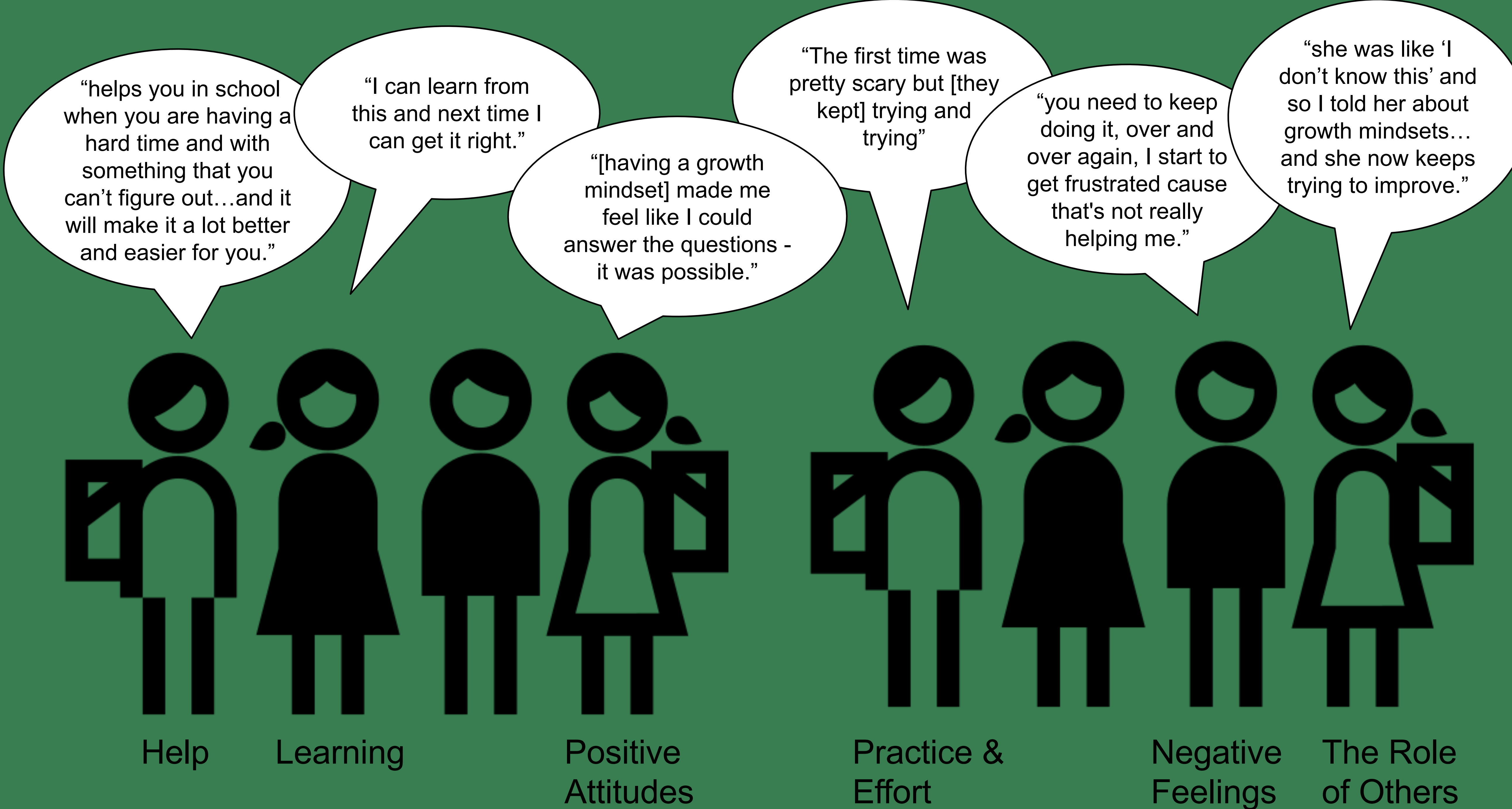


Mobilizing Mindsets: The Effects of Growth Mindset Messaging on Elementary Students' Emotions

Sierra L.P. Tulloch, Bryce S. Dueck, Lauren D. Goegan, Nigel M. Lou, Morgan Klevyer, Darren Sweeney, Sarah Holmgren, Kimberly A. Noels, & Lia M. Daniels

It's never too early to start a growth mindset.



“helps you in school when you are having a hard time and with something that you can't figure out...and it will make it a lot better and easier for you.”

“I can learn from this and next time I can get it right.”

“[having a growth mindset] made me feel like I could answer the questions - it was possible.”

“The first time was pretty scary but [they kept] trying and trying”

“you need to keep doing it, over and over again, I start to get frustrated cause that's not really helping me.”

“she was like 'I don't know this' and so I told her about growth mindsets... and she now keeps trying to improve.”

Help Learning Positive Attitudes Practice & Effort Negative Feelings The Role of Others

RESULTS

- Students as young as Grade 1 were positively impacted by growth mindset messaging, both in school and when facing challenges outside of school.
- Overall, students appeared to have significantly more of a growth than fixed mindset ($t(35) = 12.53, p < .001 [4.88, 6.78]$).

Paired Samples *t*-test

Emotion	Growth		Fixed		<i>t</i> -value	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Excited	3.47	1.32	1.53	.94	7.20	1.62
Confident	4.00	1.15	1.72	1.03	7.23	1.89
Happy	3.61	1.27	1.67	1.15	7.28	1.60
Good	3.83	1.08	1.53	1.16	8.20	1.69
Bad	1.25	.65	2.28	1.45	-3.70	1.66
Sad	1.19	.47	2.25	1.38	-4.48	1.41
Angry	1.33	.68	2.47	1.61	-3.82	1.79
Frustrated	1.86	1.33	2.75	1.73	-2.56	2.08

Note. All comparisons statistically significant at $p < .001$ except frustration in which $p = .007$ one-tail.

SUMMARY

- Efforts made by teachers paid off in helping students hold a growth mindset and see a variety of positive implications from that self-belief.
- One implication for researchers is to seek both an understanding of formalized growth mindset interventions as rigorously implemented and of teachers' and schools' use of less formal mindset messaging and resources.



INTRO

- Many studies have shown that when students hold a growth mindset, they tend to persist and perform better.
- This beneficial outcome has led to a proliferation of easily-accessible mindset materials and integration of such messaging into schools with the intention of improving academic achievement.
- Little is known about how such mindset messaging impacts elementary school students' emotions at school even if it does relate to their achievement.

METHODS

- A multi-method approach was used to examine students' perceptions of mindset messaging at their school and the emotions they experienced.
- Phase 1 involved 10 focus groups of Grade 1-5 students ($n=84$).
- Phase 2 required Grade 4 and 5 students ($n=37$) to participate in a quantitative survey.

MEASURES

- The focus groups were semi-structured with questions asking students about their thoughts, feelings, and examples of both fixed and growth mindsets.
- The survey included 8 positive and negative emotion Likert-scale items and a 4-item mindset measure (Porter et al. 2020).

ANALYSIS

- Qualitative results were examined through an inductive content analysis.
- A frequency analysis and one-sample *t*-test was run on the mindset measure, and 8 paired-samples *t*-tests were run on the emotion items.

